

ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS on STN
 SESSION NUMBER: 1996:342147 HCAPLUS
 DOCUMENT NUMBER: 125:4414
 TITLE: Cloning of gene for dihydroxy-acid dehydratase of
 coryneform bacteria and its use for manufacturing
 isoleucine and valine
 INVENTOR(S): Inui, Masayuki; Man, Tomoko; Kobayashi, Miki; Yugawa,
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 PATENT ASSIGNEE(S): Mitsubishi Chem Corp, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 INT. PATENT CLASSIF.:
 MAIN: C12N015-09
 ADDITIONAL: C12N009-88
 INDEX: C12N015-09, C12R001-13; C12N009-88, C12R001-13
 CLASSIFICATION: 7-2 (Enzymes)
 Section cross-reference(s): 10
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08089249	A2	19960409	JP 1994-234612	19940929
PRIORITY APPLN. INFO.:			JP 1994-234612	19940929

ABSTRACT:

The gene encoding dihydroxy-acid dehydratase (E.C. 4.2.1.9) is isolated from Brevibacterium flavum strain MJ-233. Expression plasmid pCRY30-DH encoding the enzyme was prepd. and used for the transformation of coryneform bacteria. Brevibacterium flavum strain MJ-233 transformed with the plasmid produced isoleucine 20 mM into the medium as compared to 10 mM by the wild type.

SUPPL. TERM: coryneform bacteria dihydroxy acid dehydratase gene; valine
 isoleucine manuf Brevibacterium
 INDEX TERM: Brevibacterium flavum
 Deoxyribonucleic acid sequences
 Protein sequences
 (cloning of gene for dihydroxy-acid dehydratase of
 coryneform bacteria and use for manufg. isoleucine and
 valine)
 INDEX TERM: Gene, microbial
 ROLE: MSC (Miscellaneous)
 (cloning of gene for dihydroxy-acid dehydratase of
 coryneform bacteria and use for manufg. isoleucine and
 valine)
 INDEX TERM: Plasmid and Episome
 (pCRY30-DH; expression of gene for dihydroxy-acid
 dehydratase of Brevibacterium flavum on)
 INDEX TERM: Bacteria
 (coryneform, cloning of gene for dihydroxy-acid
 dehydratase of coryneform bacteria and use for manufg.
 isoleucine and valine)
 INDEX TERM: 177474-84-9
 ROLE: BUU (Biological use, unclassified); PRP (Properties);
 BIOL (Biological study); USES (Uses)
 (amino acid sequence; cloning of gene for dihydroxy-acid
 dehydratase of coryneform bacteria and use for manufg.
 isoleucine and valine)
 INDEX TERM: 72-18-4P, Valine, preparation 73-32-5P,
 Isoleucine, preparation
 ROLE: BPN (Biosynthetic preparation); BIOL (Biological
 study); PREP (Preparation)
 (cloning of gene for dihydroxy-acid
 dehydratase of coryneform bacteria and use for
 manufg. isoleucine and valine)
 INDEX TERM: 9024-32-2, Dihydroxy-acid dehydratase